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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,318	03/01/2002	Gary J. Hydock	17851.0 (Hydock)	2105

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EXAMINER

BAXTER, GWENDOLYN WRENN

ART UNIT	PAPER NUMBER
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3632

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/087,318

Applicant(s)

HYDOCK, GARY J.

Examiner

Gwendolyn Baxter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 38-44 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-11, 13-16, 20-23, 27, 29-31 and 33 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 12, 17-19, 24-26, 28, 32 and 34-37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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This is the second office action for serial number 10/087,318, Modular Radiant Heat Panel System, filed on March 1, 2002.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,635,710 to Shelley, hereinafter Shelley. The present invention reads on Shelley as follows: Shelley discloses radiant heat transfer panel comprising a formed tray (26). The tray defines a thermal volume (30) and a conduit channel (14). The volume contains the thermal mass. The channel, volume and thermal mass configured and arranged to permit heat transfer between the conduit and the thermal mass (col. 3, lines 41+). The conduit channel is a U-shaped trough. The conduit channel is cylindrical. The conduit channel comprises a linear section. The conduit channel comprises an arcuate section. See figure 2 to see the various orientations of the conduit channel.

Claims 1, 6, 13, 14-16, 20, 22, 23, 27, 29-31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,283,382 B1 to Fitzmeyer, hereinafter Fitzmeyer. The present invention reads on Fitzmeyer as follows: Fitzmeyer discloses radiant heat transfer

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panel comprising a formed tray (10). The tray defines a containment space (defined between 14) and a conduit channel (16). The space contains a thermal mass (56). The channel, containment space and thermal mass configured and arranged to permit heat transfer between the conduit and the thermal mass in a limited manner (col. 4, line 59+). The conduit channel is a U-shaped trough. The space is open on a first side of the tray and the conduit channel is open on a second side of the tray opposite the first side. The fluid that flows in the conduit is water (col. 3, lines 62+). An overlayer (92) has a finishing surface and includes an under layer (90). The panel is attached to the under layer by mechanical bond or mechanical fastener (92). The panel has an outer surface and the outer surface defines a standing wall.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shelley in view of U.S. Patent No. 6,283,382 B1 to Fitzmeyer. Shelley teaches the limitations of the base claim, excluding the conduit channel is plastic tubing.

Fitzmeyer teaches a panel comprising plastic tubing that is a heat conductive flexible plastic. It would have been obvious to one having ordinary skill in the art at the time the

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invention was made to have modified the material of the conduit of Shelley to have incorporated the plastic tubing as taught by Fitzmeyer, as mere substitution of functional equivalent part, since this tubing allows heat to be transferred.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shelley in view of U.S. Patent No. 6,021,646 to Burley. Shelley teaches the limitations of the base claim, excluding the tray being formed from one of the following compositions: polyvinyl chloride, polyethylene, polybutylene and thermoplastic material.

Burley teaches a thermal radiant panel formed of polyethylene or polypropylene. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the material of the tray as taught by Shelley to have incorporated the prescribed thermoplastic material as taught by Burley for facilitating transportation and installation of the panel.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shelley in view of U.S. Patent No. 2,726,593 to Lahti. Shelley teaches the limitations of the base claim, excluding the thermal mass comprising a composition from a group consisting of cement, mortar, ceramic, concrete or stone.

Lahti teaches a radiant panel comprising a thermal mass is a gravel filler having a concrete surface or textured outer surface (col. 4, line 28+). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the thermal mass as

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taught by Shelley to have incorporated filler as taught by Lahti, as mere substitution of functional equivalent parts for the purpose of controlling the heating in the heat radiating member.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fitzmeyer in view of Cohen. Fitzmeyer teaches the limitations of the base claim, excluding the finishing surface being selected from a group consisting of wood, carpet, tile and laminate.

Cohen teaches the surface is tile. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the system of Fitzmeyer to have incorporated the tile as taught by Cohen for the purpose of providing an attractive flooring or covering for the radiant heat system.

Allowable Subject Matter

Claims 4, 5, 12, 17, 18, 19, 24-26, 28, 32 and 34-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 38-44 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach the following: a fixture tower, side gusset, and the attachment spacer being wood. Additionally, the art fails to teach the step of providing an attachment space and positioning the attachment spacer adjacent at least one of the panels.

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Response to Arguments

Applicant's arguments filed September 17, 2003 have been fully considered but they are not persuasive.

Applicant argues that Shelley fails to anticipate the present invention. In fact, Shelley does not define a conduit channel in combination with a space containing filler material. Independent claim 1 reads "said tray defining a containment space and a conduit channel. The tray (26) clear has a space for holding a thermal material 30. Additionally, the tray has another structural element a conduit channel for holding the conduit. Therefore, meeting the recited limitations of this claim.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

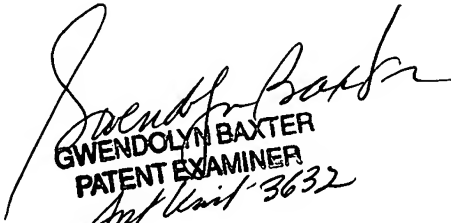
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will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gwendolyn Baxter whose telephone number is (703) 308-0702. The examiner can normally be reached Monday-Friday from 8:30 A.M. to 5:00 P.M. Eastern Time Zone.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1113. The fax phone number for this Group is (703) 305-3597.


GWENDOLYN BAXTER
PATENT EXAMINER
Art Unit 3632

GB
November 29, 2003